April-May 1972

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Strategic Concepts and Soviet Policy

C.D. Public Education in the USSR

Developments in USSR Civil Defence

Assured Nuclear Destruction?

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STRATEGIC CONCEPTS AND SOVIET POLICY

by

David Holloway

The paper reproduced below was presented at a recent discussion group in the Institute. It looks at Soviet military-strategic thinking and the part that strategic concepts play in Soviet policy-making, against the background of the Soviet decision to enter strategic arms limitation talks with the United States. The author is Lecturer in Politics at the University of Edinburgh and the author of Adelphi Paper No. 76, Technology, Management and the Soviet Military Establishment. *It is reprinted with kind permission of the author and The International Institute for Strategic Studies.*

It has been suggested by some commentators that one of the major benefits to be expected from the Strategic Arms Limitation Talks (SALT) is the institutionalization of the strategic dialogue on a firmer footing than hitherto. While a comprehensive strategic arms treaty is generally regarded as the outcome most to be desired, considerable claims are often made for a firmly-grounded strategic dialogue. It is argued that the strategic dialogue between the United States and the Soviet Union at SALT could lead eventually to a dampening of the strategic arms race through unilateral restraint flowing from increased understanding. Less conservative assumptions, it is argued, could be used in planning; the introduction of new weapons could be slowed down; and threats to the other side's deterrent forces could be avoided in the procurement of new weapons.

Such a dialogue might be expected to include the exchange of information about strategic programmes, policies and perceptions. And there can be little doubt that, where this is coupled with the interpretation of specific programmes and their implications for the other side, it would greatly facilitate firm limitations on strategic armaments. But it has also been suggested that the discussion of fundamental issues of strategy and arms control would contribute to a mutual understanding on the basis of which specific agreements could more easily be reached. Among the issues which might be discussed are the following: What are the purposes of strategic nuclear forces? What constitutes a 'sufficient' strategic posture? How stable is the present strategic balance? What are the principles and objectives of arms control? It is apparent that complete common understanding on these points is not a necessary condition for the achievement of a specific agreement on arms limitation for which each side might have its own reasons. But it is widely assumed that common understanding would facilitate a specific agreement, and that it might have a beneficial effect beyond the letter of the agreement. This assumption appears to be made both for the case in which there is mutual understanding and agreement on these purposes and premises, and for the case in which there is both understanding and disagreement.

This line of argument raises a number of basic questions about the relationship between strategic concepts and the development of military power. For, in its simplest forms, it assumes that the development of strategic power is guided by strategic doctrine. This assumption is highly problematical and could not be made *tout court* on the analysis of Western defence policies. But it is often made in the analysis of Soviet policy, with a consequent failure to take into account the domestic policy-making process, the role of different institutions and the functions of different kinds of internal debate. All this greatly diminishes the value of such analysis. In this paper I shall look at Soviet military-strategic thinking in the light of the fundamental issues mentioned above. Besides looking at Soviet strategic concepts I shall consider briefly their role in Soviet policy-making, with particular reference to the Soviet decision to take part in SALT. The problem of defining the relationship between concepts and policy is of course an extremely difficult one, and I shall be able to do no more than touch on some of its aspects.

The purposes of strategic forces

In the Soviet Union much of the argument about this extremely complex issue has centred on the specific proposition, associated with Clausewitz and endorsed by Lenin, that war is the continuation of politics (policy) by other, violent means. Soviet theory has adhered in general to this position. But in the nuclear age considerable difficulties arise in maintaining such a view: in what sense can missile-nuclear war be regarded as a continuation of politics? More generally, how can strategic nuclear capabilities be translated into political power and influence?

Under Khrushchev the general and mutually destructive nature of nuclear war was stressed ; Since Khrushchev's fall greater emphasis has been put on the capacity of the Soviet Union to survive and win such a war. The earlier view went hand in hand with a rejection of the

idea that nuclear war could be regarded as a continuation of policy; the more recent emphasis has been accompanied by a reassertion of the validity of this conception in the nuclear age. The reaffirmation of this position does not prove, as some commentators have appeared to assume, that the Soviet Union has been aiming for some of first-strike capability. Soviet writers have been careful to distinguish two questions: that of the essence of war, and that of its expediency.

The new emphasis in Soviet military writing does not appear to signal a substantive change in policy. But it amounts, nonetheless, to more than mere casuistry, for its reflects several important features in Soviet military thinking. The first of these is the fear that undue and exclusive insistence on the destructive nature of nuclear war will lead to demoralization or complacency in the armed forces. It is one of the main purposes of the Soviet military press to help maintain the morale, fighting spirit and combat readiness of the Soviet armed forces, and any analysis of military writings must bear this in mind. The second feature is the emphasis on the war-waging, as well as the war-deterring, elements in military strategy. This emphasis seems to arise out of a genuine conviction that nuclear war with the United States is a real possibility, and it is this possibility that forms the central focus of Soviet strategic thinking. The renewed stress on the Clausewitzian view of war can be seen as part of an attempt by Soviet military writers to discredit the assumptions which underlay Khrushchev's policy of minimum deterrence.

The emphasis on the possibility of nuclear war in Soviet strategic thinking has clear implications for Soviet understanding of the purposes of strategic nuclear forces. Their object is to deter war, and wage it if deterrence fails. Nuclear war would be a catastrophe for both sides, but damage could be limited, and to speak of victory is not necessarily meaningless. This emphasis affects also the relationship between offence and defence at the strategic level: an anti-ballistic missile (ABM) system could, *in principle,* play an important role in limiting damage in a nuclear war. The focus on nuclear war affects also the roles and missions assigned to the different branches of the military establishment. More abstractly, it makes the point that deterrence is not viewed in the Soviet Union as an eternal principle of Soviet-American strategic relations. Mutual deterrence is not regarded as an exclusive mechanism for regulating the balance of strategic power, since deterrence is not viewed as the sole purpose of strategic capabilities; nor is mutual deterrence seen as a reliable device for preventing nuclear war—hence the need to prepare to wage such a war.

The political uses of strategic nuclear power are even more complicated than its military exploitation. Khrushchev espoused a highly personal style of managing military power in the pursuant of his political goals. He sought to exploit a nuclear posture which he defined, almost at will, as superiority or parity *vis-à-vis* the United States, without being prepared to pay for more than a minimum deterrent. His deterrent and counter-deterrent threats suffered a continuous decline in credibility. His successors have eschewed his vociferous manner, and have adopted a policy of greater restraint, though perhaps also of greater pertinacity, towards the United States. It has evidently been a prime concern of the new leadership to restore credibility to the political uses of their military power. This they have sought to do by building up their strategic capabilities and also by increasing the flexibility of their military power.

The feeling that numerical strategic inferiority was politically disadvantageous certainly seems to have been an important element in the Soviet decision to overcome that inferiority. Some observers have seen the attainment of strategic parity as a large contributory factor in the self-confidence which Soviet policy has displayed in the last two to three years. But the difficulty of isolating and evaluating this factor among others is apparent from the use of such vague, though perhaps expressive, terms as 'superpoweritis', 'expansionist mood', and the assertion of 'seignorial super-power rights' to characterize current Soviet policy. How long this mood will last, and how far it might be conducive to an adventurous, and potentially dangerous, policy is not clear.

The definition of sufficiency

There is in Soviet strategic theory no obvious criterion of nuclear sufficiency. There is a principle of military superiority which is extremely vague and impossible to quantify. It sometimes means little more than that standards of excellence should be pursued in all aspects of the military effort. Nevertheless it is no doubt extremely important inasmuch as it reflects a firm belief that the Soviet Union, as the leading socialist state, must have a superior military capability of some kind; and this superiority will tend to be expressed at the very least in terms of numbers. Whatever the motives behind the Soviet strategic build-up, and whatever the steps by which it was decided upon, the Soviet planners have been faced with the problem of how far to carry deployment. In spite of the almost ritualistic Soviet insistence on the need for superiority, the notion of sufficiency is not totally alien to Soviet thinking. Khrushchev had declared Soviet defence to be 'wholly adequate' in 1960, but this assessment was based more on his faith in his own ability to exploit Soviet military power for political ends than on any military-strategic criterion. Soviet strategic doctrine does not have a criterion of sufficiency such as is supplied by the notion of assured destruction. Indeed that notion is derived essentially from the concept of mutual deterrence, and the quantification of assured destruction may be seen as the deification of deterrence.

The Soviet build-up in strategic armaments has gone well beyond the point of attaining an assured destruction capability. The motives for the build-up are not wholly ascertainable, but it must presumably make sense in terms of the purposes of strategic nuclear forces—in a war-waging and damage-limitation context, and for the political gains to be extracted from it. Some commentators have suggested that, while inferiority was unsatisfactory, the achievement of parity has been accompanied by a realization of the diminishing political utility of vast strategic power. It has been argued also that Soviet planners are becoming increasingly aware that more armaments do not necessarily bring greater security. Soviet planners are faced, therefore, with the problem of deciding how much is enough.

The stability of the strategic balance

Soviet military theorists do not deny that there may exist at a given time a situation in which either the Soviet Union or the United States could inflict enormous damage on the other in a retaliatory strike. But what they seek to do, with their distinction between the essence of war and its expediency, is to prevent any acceptance of mutual deterrence as a normal state of affairs. In this they are doubtless helped by the connotations of the two Russian words for deterrence—*sderzhivaniye* (literally restraining or checking) and *ustrasheniye* (literally terrorization); the former is generally used to describe the effect of Soviet military power on the United States, and the latter is commonly used to describe what the United States tries to do to the Soviet Union. Thus, apart even from the possibility of destabilizing developments in weapons technology, there seems to be in Soviet thinking a consciousness of change and flux, and an unwillingness to accept mutual deterrence as in any way sacrosanct. This might be called a dialectical view of the strategic balance.

Allied to this issue is the Soviet concept of the arms race. It is only in the last three to four years that the elements of action and reaction have gained any prominence in Soviet commentary on the arms race. Before that it was seen as something imposed on the Soviet Union by the aggressive United States. Recent Soviet analysis has pointed to the complexity of the policy-making process in the United States, though with due emphasis on the activities of the military-industrial complex. There seems to be a much greater awareness of the degree to which Soviet and American policies interact, and of the degree to which one side will attempt to offset increments in the other's military capabilities.

The attainment of parity seems to have contributed greatly to this awareness. To a government seeking to overcome a position of numerical strategic inferiority any mention by the other side of an action-reaction process will seem like a threat to maintain the existing strategic relationship. Once a situation has been reached in which both sides acknowledge parity, such a threat can more reasonably be made by both sides. In any event, the earlier Soviet insistence that ballistic missile defence (BMD) could not be considered destabilizing because it was purely defensive has now been replaced by an attitude which is more sensitive to its arms-race implications. But the problems of interpretation are exemplified here. We cannot tell whether such statements are purely declaratory or whether they represent a real change in Soviet attitude. The defensive nature of BMD was proclaimed when Soviet deployment was taking place; the destabilizing implications have been found since the US decision to deploy the *Safeguard* system. But Soviet policy does seem to have become somewhat less introspective in the last three years. There has been an evident desire to understand American policy better. The very active Institute of US Studies, which has been set up in the USSR Academy of Sciences, has a central role to play in the interpretation of US policy.

The principles and objectives of arms control

The Soviet Union remained for a long time suspicious of US arms-control proposals (e.g. the Johnson freeze) which might have served to legitimize American strategic superiority. By the summer of 1968 the Soviet leadership had decided to enter SALT at what *Pravda* described as 'one of those rare moments in history . . . when both sides are ready to admit equality in the broadest sense and to view this as an initial position for reaching agreement concerning the freezing and the subsequent reduction of arms. They have insisted, as a basic principle, that no side should gain unilateral advantage from the talks.

The SALT talks seem to presuppose: recognition of the existence of strategic parity between the superpowers; acceptance of mutual deterrence as the basis for an agreement to limit arms; and an acknowledgement that if no limitation, tacit or explicit, is agreed upon, the arms race will enter another spiral because each side will seek to offset the other's potential and realized increases in strategic power. There is no criterion or guideline in Soviet strategic doctrine to suggest that agreement on the basis of these assumptions would be satisfactory. And it seems to have been precisely on this point that there has been controversy in the Soviet Union over the decision to take part in SALT. The decision seems to have been taken by the Soviet leadership on the basis of political calculation rather than military-strategic reasoning. As one Western commentator has put it:

> 'the question for the Soviet Union is not merely whether the present military balance is satisfactory, but whether it is more satisfactory than a situation resulting from a continuation of the arms race.'

And another:

> 'the Russians would like to possess a numerical superiority over the US at the highest level which would not spark off another major round of the strategic arms race. For, while nothing that the Soviet leaders have so far authorized in weapons policy has imposed an *intolerable* strain on the Soviet economy, another major round could; moreover, the Russians could not guarantee that such a round would not leave them relatively worse off than they are now.'

This is to pose the Soviet leadership a particularly fine problem of political judgment, especially when the policy-making machines on both sides appear to be so cumbersome, and the mechanism of the arms race so poorly understood. And it seems likely that there is in the Soviet Union disagreement about how far deployment can go without sparking off another round of the arms race. Part of this disagreement seems to focus on the interpretation of the arms race. For example, the American decision to go ahead with the deployment of multiple independently-targetable re-entry vehicles (MIRVs) raised doubts in some Soviet quarters about the genuineness of US adherence to a conception of stable mutual deterrence, and about the seriousness of its participation in SALT. The United States, it is maintained, will fabricate a Soviet 'threat' to enable it to pursue whatever policy it chooses, irrespective of the real nature of Soviet policy. Thus the interpretation of US policy becomes a delicate issue, and one of real importance, in Soviet politics.

It appears that the major aims of Soviet strategic policy at SALT are: to stabilize the strategic relationship at parity; to prevent another spiral of the arms race, which would be extremely costly, and might diminish security rather than increase it; to establish more clearly its own strategic arms policy by probing US policy. Besides, participation in SALT is an outward and visible sign of super-power status. If this interpretation is correct, and the Soviet approach to SALT is serious, as it seems to be, then it appears that Soviet policy is based on the acceptance of assumptions and principles which run counter to dominant elements in Soviet military-strategic thinking.

Conclusion

I am aware that this argument has simplified enormously complex issues to the point of distortion. Soviet strategic thinking contains diverse elements: different institutional interests and different styles of argument are involved. There is, for example, a disjunction between the emphasis on the need to prepare to wage war, to be found in military writings, and the stress to be found in Foreign Ministry statements on the political implications of strategic programmes. This difference in emphasis can be explained in part by saying that the military press serves to maintain the morale of the armed forces and to rationalize their combat training and political education. But this does not render the difference in emphasis irrelevant to our understanding of how Soviet policy is made. For if the morale and combat readiness of the armed forces have to be kept up by the propagation of a doctrine which is at odds with Soviety policy, the High Command and the Main Political Administraiton will press for at least some correspondence between Soviet policy and strategic doctrine, unless we assume the conscious dissemination among the armed forces of a doctrine which bears little relation to Soviet policy.

Another instance of diversity is to be found in Soviet strategic analysis. The military philosophers, who are based mainly on the Lenin Military Political Academy which is subordinate to the Main Political Administration, use in their arguments the potent mixture of appeals to ideological orthodoxy and military conservatism. But newer kinds of analysis, based on economic modes of thinking and new forecasting techniques, are gaining ground in the military academies and the central administration. These appear to be closely linked to the new emphasis on the elements of action and reaction in the arms race, and to the search for a definition of sufficiency. They flow from the attainment of parity—or rather, from the acceptance by the super-powers that parity does exist. For parity is an imprecise concept, whose precise definition in terms of armaments seems to matter less than the psychological effects of acknowledging its existence. The new modes of thinking are based on the belief that a plateau, or point of equilibrium, has been reached in the strategic balance. Hence the divergence between strategic policy and strategic concepts in the Soviet decision to take part in SALT may be no more than the symptom of a transitional period in Soviet strategic thinking. If anything like a comprehensive agreement to limit strategic armaments were to emerge from SALT it would perhaps be accompanied by changes in strategic doctrine which rationalized the outcome and explained why it was satisfactory. But even if new methods of analysis and new strategic concepts, were to gain greater influence in the Soviet Union, this would not necessarily destroy the 'Russian style' in policy, for the psychological basis of such concepts as deterrence and sufficiency would lead to their being made operational in a 'Russian way'.

The complexity of the relationship between concepts and policy makes it imperative to take account of institutional arrangements when analysing Soviet policy. By this I have in mind not so much the question of disagreements in the Politburo—the search for these is often a futile exercise—but rather the relationships between the various institutions involved in the making of strategic policy: the Ministry of Defence, the General Staff, the Main Political Administration, the Ministry of Foreign Affairs, the Central Committee Departments, the Council of Ministers, the Military

Academies, the Institute of US Studies and so on. For all the minute study of the Soviet press which has taken place, the institutional arrangements for the formation and execution of strategic policy have been largely neglected. Yet the internal debates in the Soviet Union can scarcely be properly understood without reference to the political and bureaucratic context within which they take place.

This discussion is relevant to our understanding of the strategic dialogue. Soviet participation in SALT seems to point to a less introspective approach to policy and to changes in strategic thinking. And for those who have seen Soviet strategic thinking as an obstacle to arms control, either because it lacked sophistication, or because it reflected aggressive designs, these changes will seem hopeful. But the process of change is complex, and present Soviet policy seems to be the result of a compromise reached in 1968 to adopt a businesslike approach at SALT, and at the same time to continue to deploy strategic armaments. Indeed, both sides have been so intent on providing themselves with bargaining counters that SALT may have had the effect of speeding up the arms race rather than slowing it down. To hope, therefore, for a dampening of the arms race on the basis of a common understanding of strategic concepts and theory seems unrealistic, in view of the complicated relationship that exists between concepts and policy. I am not casting doubts on the value of the dialogue at SALT, which will be bound up in the discussion of strategic programmes. But the study of Soviet policy on the basis of open materials, if it is to contribute to our understanding of how Soviet policy is made and of how the arms race works, must go beyond the analysis of concepts. For policy is the outcome, not of debates about concepts, but of immensely complex political and bureaucratic processes, of which those debates are only a part. ▲

DEVELOPMENTS (*Continued from page 19*)

training, equipment acquisition, planning and other measures, appears to have provided the Soviet Union with a very significant and still growing civil defense capability.

* The Soviet civil defense system gives priority to assuring the survival of the more essential elements of the Soviet state, i.e., the Party and administrative apparatus and the industrial workers. In wartime these elements are expected to organize and sustain the war and recovery efforts and maintain continuous essential industrial production; in peacetime the civil defense system assists in dealing with damage caused by national disasters. ▲

C.D. PUBLIC EDUCATION IN THE USSR

by

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The December 1971–January 1972 edition of the Digest, Vol. 11 No. 6, published part of a presentation to the 1971 annual conference of the NATO Civil Defence Committee in Brussels, Belgium. The title of that Digest article by Governor Davis is "U.S. Civil Defense Takes a New Direction". The following article along with some of his accompanying illustrations illustrates the importance of public education and involvement in Soviet Civil Defence.

Now that I've told you about new directions in the U.S. Civil Defense program, it might be well to take a look at what is happening in Soviet Civil Defense.

Since our last meeting, the Soviets have placed increased emphasis on their program.

The leadership of the Soviet Union appears to be well aware of the magnitude of damage that could result from a strategic nuclear exchange. But they also believe the USSR could survive a nuclear war.

Leonid Brezhnev, Secretary General of the Communist Party, stated at the 23rd Party Congress, "It is necessary to continually improve the defensive effort among our population, to strengthen our system of Civil Defense and to disseminate more broadly military knowledge—especially among the youth."

At the 24th Party Congress, which took place in Moscow last spring, Brezhnev added, "Any possible agressor is fully aware that in the event of attempting a nuclear-missile attack on our country, he will be dealt a devastating counter-strike".

Substantial progress has been made in providing adequate protection for the Soviet population.

During the past year, the Presidium of the Supreme Soviet has issued a series of decrees that shelter must be provided for Soviet citizens when away from their homes and at places of employment.

The decrees also require that motion picture theaters, restaurants, and public parking garages in urban areas will be built underground in the future.

The decrees further specify that these dual-purpose shelters must be heat—and blast—resistant, as well as providing radiation protection. In addition, they are to be stocked with food, water, and medical supplies.

An article published in Moscow in 1970 noted that "many cities have developed a network of underground shelters such as the Metro, passageways under streets, rail tunnels, and others."

There has also been a massive educational effort to inform and instruct the Soviet people in what can be done to survive any possible attack by weapons and mass destruction.

Highly sophisticated instructional materials of every variety have been developed in order to reach all elements of Soviet Society—from school children to pensioners.

Books, pamphlets, magazine and newspaper articles, motion pictures, radio and television broadcasts, filmstrips, posters, lectures, seminars, and informal discussion groups have been used.

To give you an idea of the quality of these materials, I show a few of the instructional charts produced in the Soviet Union:

It is clearly apparent that the Soviet authorities have increased the scope and momentum of their civil defense effort, and have advanced further than the United States.

When this situation is viewed in the light of corresponding Soviet advances in military readiness, I believe all of us who represent civil defense in the NATO group should take another look at our own programs—and do all we can to strengthen them. ▲

Figure 1. First of a series of posters designed to teach school children "the methods and means of defence against weapons of mass destruction."

The quotation in red letters under the title is taken from the official report presented to the 23rd Congress of the Communist Party. "It is necessary to perfect Civil Defense, to improve military-patriotic work among the workers .... The entire party, all Soviet Society must be dedicated to this effort."

In the upper left-hand corner, in white letters on the red background, is the Soviet definition of Civil Defense: "Civil Defense is a system of governmental defensive measures both in peace and war-time with a view to protecting the population and increasing the survivability of the national economy in the event the enemy employs nuclear, chemical or biological weapons; and also for the conduct of rescue work and damage repair-reconstruction work in areas of mass destruction."

1

2

Figure 2. Describes a nuclear weapon as "the most powerful weapon."

Figure 3. Contemporary dual-purpose permanent shelters are described as reliable for group protection.

Figure 4. Describes how protection from radioactive fallout can be provided by use of dugout shelters, and improvised shelters built into existing structures.

Figure 5. Mines and underground structures, such as the Metro tunnel shown in the lower right-hand corner, provide deep shelter.

Figure 6. All Soviet citizens must learn how to use individual protective devices.

Figure 7. This chart indicates measures which may help to protect the home.

Figure 8. Defensive measures against contamination of food and water supplies.

Figure 9. What one must know and do in the event of evacuation.

Figure 10. If the warning signal is given, each citizen must know how to react.

Figure 11. Conducting rescue work in the vicinity of a nuclear strike.

Figure 12. Firefighting and rescue work.

Figure 13. Carrying and loading wounded persons.

Figure 14. Actions to be taken in contaminated areas.

Figure 15. Decontamination of clothing, boots, shoes, protective equipment, and dwellings.

Figure 16. Decontamination of people.

Figure 17. Protection of livestock, fodder, and watering places.

Figure 18. Veterinary treatment of livestock.

Figure 19. Conducting reconnaissance by observation.

Figure 20. Conducting reconnaissance in the vicinity of a nuclear strike.

СОВРЕМЕННЫЕ УБЕЖИЩА – НАДЕЖНЫЕ ВОЗДУШНЫЕ СРЕДСТВА ЗАЩИТЫ

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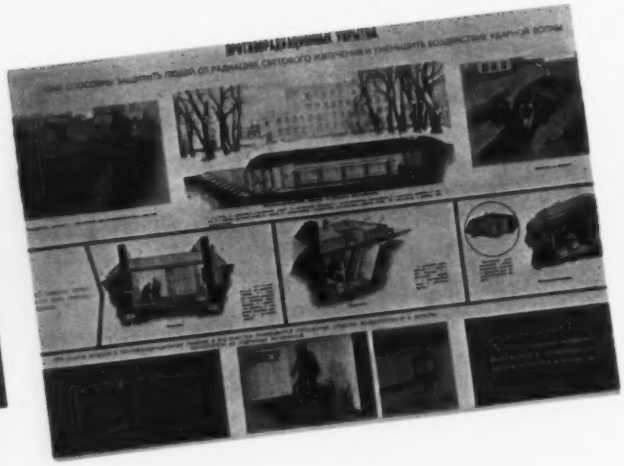
ПРОТИВОРАДИАЦИОННЫЕ УКРЫТИЯ

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ИНДИВИДУАЛЬНЫЕ СРЕДСТВА ЗАЩИТЫ

6

7

ЗАЩИТА ОТ ЗАРАЖЕНИЯ ЗАПАСОВ ПРОДУКТОВ И ВОДЫ

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САНИТАРНАЯ ОБРАБОТКА ЛЮДЕЙ.
В ЗАВИСИМОСТИ ОТ ОБСТАНОВКИ, НАЛИЧИЯ ВРЕМЕНИ И СРЕДСТВ, САНИТАРНАЯ ОБРАБОТКА МОЖЕТ БЫТЬ ЧАСТИЧНОЙ И ПОЛ

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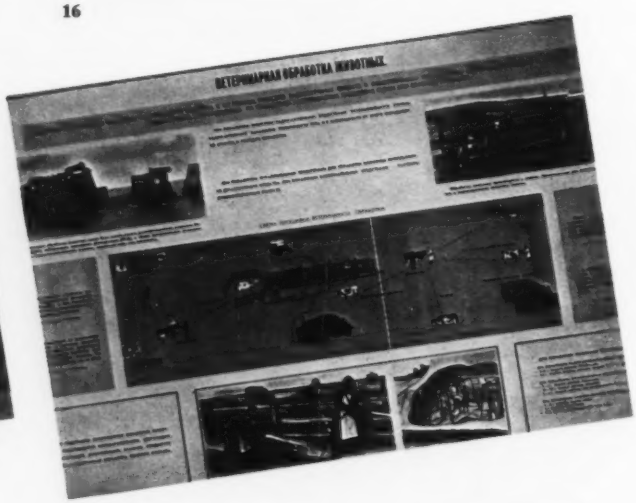

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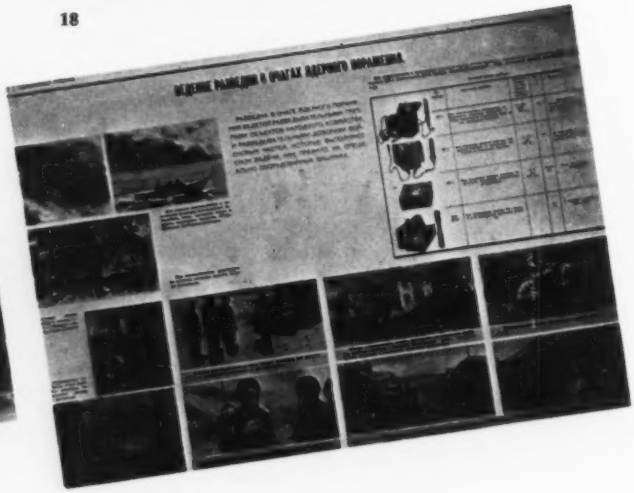

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DEVELOPMENTS IN U.S.S.R. CIVIL DEFENSE 1969-1970

by

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This study was prepared last year under contract to the Office of Civil Defense, Washington, D.C. The following excerpt and summary is reproduced with the permission of O.C.D. Note: Numerical source references have been modified from the original report.

Introduction

The public Soviet view concerning the persistence of danger of war with the West, and the need to strengthen further Soviet defence capabilities has remained essentially unaffected by the Soviet attainment of approximate parity in strategic weapons with the United States, the start of SALT or other Western efforts to reduce East-West tensions. In the light of the assertion by L. I. Brezhnev, General Secretary of the Central Committee of the Communist Party of the Soviet Union that the threat of war will remain as long as imperialism survives in the world, Moscow's public position is that while struggling for peace and total disarmament, the Soviet Union defence posture must be capable not only of deterring "aggression" by Western powers, especially the United States, but must also be prepared to survive and "win" a war if it were to break out.

Being conceived as an integral part of the Soviet defence capability, the Civil Defense Program has been a long-standing concern for over a decade. The program's momentum and investments in it have noticeably increased since the 23rd Congress of the CPSU in 1966 which, in its Resolution and in Brezhnev's speech, took the unusual step of calling for the "perfecting of civil defense." This high level endorsement not only served to upgrade the importance of civil defense, but also provided it with the necessary leverage to demand increased support from national and local party, administrative and economic organizations.

Like many other aspects of Soviet activities, in particular those associated with defense, no specific information is available on various elements of the Civil Defense Program, such as its actual capability, state of readiness, the numbers of personnel involved, or its costs. However, in view of its general public nature, a great deal continues to be published in the Soviet Union concerning the characteristics and scope of the program, its doctrine and plans and its implementation, as well as its shortcomings. An examination of this material leaves little doubt that civil defence is being taken seriously by Soviet leaders and that they are striving to achieve a significant capability to protect the population and economy from attacks from all types of weapons of "mass destruction."

This study focuses primarily on developments in Soviet civil defense since mid-1969. The date on which the analysis is based is taken from open Soviet sources, i.e., books, pamphlets, as well as journal and newspaper articles, broadcasts and speeches by Soviet spokesmen, which deal with doctrine, plans and activities in the field of civil defense. The civil defense programs of other Communist countries, especially those of Eastern Europe, are not included in this study. In any case, those programs are generally patterned on that of the Soviet Union.

Soviet Views of the Threat

In recent years, Soviet leaders and spokesmen have persisted in describing the international situation as tense and full of danger of conflict and war. Soviet pronouncements characterize the present period as one of intensified struggle between the forces of "socialism and progress" and the forces of "imperialism and reaction," with the former conducting "uninterrupted offensives" against the latter.[1] According to this Soviet image of the world, "peaceful coexistence" between the Communist and capitalist nations is characterized as a state of acute conflict in the fields of ideology, politics and economics, and the Soviet leaders continue to reiterate their endorsement of armed "national liberation" struggles. Thus, the CPSU Central Committee's thesis for Lenin's birth centenary states: "Peaceful coexistence between states with different social systems presupposes an acute political, economic and ideological struggle between socialism and capitalism."[2]

According to Brezhnev, the danger of war will persist as long as "imperialism" survives. For example, he said on May 27, 1970:

> We live in an age of acute struggle between the two systems in the world arena. Imperialism has

[1] L. I. Brezhnev, June 8, 1969.
[2] *Red Star*, Dec. 23, 1969.

not laid down its arms. The international situation requires that we should strengthen the defence potential and combat readiness of Soviet troops. This is our sacred duty.[3]

Despite the SALT meetings and other Western efforts to reduce East-West tensions, Soviet spokesmen allege that the forces of "imperialism," led by the United States, are plotting to destroy the Communist countries by all possible means, including nuclear war. In September 1970, the authoritative CPSU journal, *Kommunist,* stated in its editorial that "the dangers and threats which [imperialism] entails for mankind have not diminished . . . Imperialism stops at nothing to achieve its goal. It is ready to play with the fate of peace and gamble with the very existence of entire peoples." In November and December 1970, the Minister of Defense, Marshal of the Soviet Union, A. Grechko, again warned that the "aggressive forces of imperialism" are continuing to pose a threat to the Soviet bloc and the national liberation movements. Later an article in *Red Star* spoke of "the situation of the growing danger of war on the part of imperialism," and the Commander in Chief of the Warsaw Pact Forces, Marshal of the Soviet Union, I. J. Yakubovsky, wrote that "looking at the complicated panorama of the modern world, we are convinced that the aggressiveness of imperialism is growing."[4]

Although since 1956 Soviet doctrine holds that war between the two systems is no longer "fatalistically inevitable," it is argued that as communism advances in the world, the desperate capitalists become more irrational and violent in their struggle to save themselves. An article in the leading journal of the Soviet Armed Forces stated:

> The deepening of the general crisis of imperialism, the intensification of its contradiction is increasing the adventurism of imperialism, and its danger for all peoples, for the cause of peace and social progress. The imperialists are increasing their attempts to seek an answer in military provocations, plots of various types, and direct military intervention.

In an article in *Red Star* Marshal Grechko wrote:

> The course of modern social development confirms the idea expressed by Lenin that the more substantial socialism's victory is, the more stubborn becomes the resistance of the imperialist bourgeoisie. Not wishing to reckon with the lessons of history, imperialist reaction seeks a way out in various kinds of adventures and provocations, and in direct use of military force.

According to the CPSU Central Committee's thesis of December 1969:

> The most aggressive detachments of present-day imperialism, primarily the United States and the FRG, have not abandoned their hopes of replaying the historical battles of the 20th century, of seeking revenue, of casting socialism down from the heights of world influence and of recreating colonialism in new forms.

Although the United States is said to be in a large measure deterred by Soviet military power and fears being defeated in a nuclear war, Soviet spokesmen also assert that the United States still seeks "a large war, the spearhead of which they are trying to aim at our country and other socialist countries."[5]

Western discussions of the feasibility of controlled nuclear wars are usually condemned as efforts to find ways to attack the Soviet Union without risking massive Soviet retaliation. In this connection, the comments of the Chief of Civil Defense of the USSR, Marshal of the Soviet Union, V. I. Chuikov, are of interest. In the revised second edition of his widely distributed pamphlet, *Civil Defense in a Missile-Nuclear War,* published in 1969, he states that some "foreign political and military spokesmen" believe that because of the enormous destructive power of nuclear weapons, warring countries would refrain in the future from resorting to them. Chuikov say that "there is a share of truth in these assertions. Indeed it is dangerous (sic) to decide deliberately on a suicidal adventure." However, he goes on to say:

> But can one rely on the expectations that the imperialists once they unleash a new war in which will clash two opposing social systems, will act humanely? Of course not. It would be naive to think that our enemies will not use against the socialist camp and especially against the Soviet Union their entire nuclear arsenal.

Other civil defense publications are even more assertive, as, for example, the following statement:

> Developments in recent years convincingly show that the imperialist camp headed by the United States of America prepares the most dangerous crime against humanity—a world war with the use of nuclear, chemical and bacteriological weapons.

While Soviet spokesmen and writers identify the United States, and until recently the Federal Republic of Germany, as the main enemies and as the most likely instigators of a nuclear war, Communist China is also at times cited as posing a threat to the Soviet Union. Soviet leaders frequently criticize Peking for its militarism and aggressiveness and denounce it for trying to whip up war hysteria among the Chinese people. However, the mention of a Chinese threat, especially in conjunction with the Soviet civil defense program, fluctuates with the vicissitudes of Sino-Soviet relations. Thus, Chuikov made no mention of China in the 1968 edition of his pamphlet, but the second edition, published in 1969, contains the following passage:

[3] *Pravda,* May 28, 1970.
[4] *Red Star,* Feb. 23, 1971.
[5] Lt. Gen. V. Gorban, Feb. 22, 1970.

> At this time it is difficult to determine how much nuclear capacity the militaristic clique of Mao Tse Tung can accumulate and how quickly it can do so, but having in hand nuclear weapons and even more so strategic missiles, the Maoists can threaten any country with nuclear attack.

Another authoritative publication by the Deputy Chief of Civil Defense of the USSR, Colonel General O. V. Tolstikov also mentioned in its 1969 edition China's hostility to the Soviet Union, but the second edition, published in 1970 omitted all references to it.[6] This was also true for other Soviet publications and commentaries on civil defense. However, even in 1968-1969, references to a Chinese threat were not generally used in the literature to justify the Soviet Civil Defense Program. One reason for this may be that the Soviet leaders found it inexpedient to explain increased defense preparations in terms of a possible war with China, especially as they frequently criticized Peking for its militarization and preparations for an alleged Soviet attack. Furthermore, with the cessation of border clashes and Soviet efforts to negotiate some of the more urgent issues with China, the Sino-Soviet dispute has reverted to debate over ideological questions. Even so, there is no reason to believe that the Soviet civil defense program was at any time primarily conceived as a response to the Chinese threat. The scope and character of the program are too comprehensive and intensive to be designed to cope solely with a Chinese attack. Rather it is the alleged threat from the United States which has and continues to justify the program.

Readiness for war and continuing improvements in Soviet military capabilities have remained a constant theme in the leadership's pronouncements. For example, Brezhnev told a meeting in Moscow on June 12, 1970:

> The greatest possible vigilance is needed to prevent a war from breaking out. This is why our party and the Soviet Government attach such great significance to the strengthening of the defence capability of the Soviet Union, of the entire socialist community . . . . In the future, too, we do not intend to relax our concern for the armed forces of our country.

Somewhat more succinctly, Kosygin said in another speech that "the defensive might of the Soviet state must be invincible in the full sense of the word."[7] In his Order of the Day to the Soviet Armed Forces on November 7, 1970, Marshal Grechko said: "The Communist Party and the Soviet Government display constant concern to strengthen the country's defensive might and raise the combat readiness of the Armed Forces." One may also note that the question of defense was mentioned in Brezhnev's December 31, 1970 New Year's Message to the Soviet people in which he asserted that "the country's defense potential has increased."

While Soviet sources do not specify what would in fact make the Soviet Union "invincible," some military leaders appear to be calling for the attainment of military superiority over the West. For example, an article in *Red Star* states that Soviet economic growth is essential for Soviet defense because "the outcome of the struggle for military-technical supremacy, which under modern conditions is of major significance, depends on the potential of the economy." An article in *Communist of the Armed Forces* states that "victory in modern war is determined not only by superiority in military material, but also by the combat capabilities and morale of the people who operate it . . ."[8] Again in 1969, the Deputy Minister of Defence and Chief of the Strategic Missile Forces, Marshal of the Soviet Union, N. I. Krylov, stated that:

> Military affairs do not tolerate stagnation. While the danger of an attack by the imperialists exists our first task is to maintain constant high combat readiness. Consequently missile weaponry will continue to improve steadily in the future.

More recently, Marshal Grechko asserted in an article in *Red Star* that "we do not have the right to be content with what has been achieved . . . the process of the armed forces' development is continuous . . . under the condition of the present international situation and at a time of rapid scientific and technical progress."[9] In an article in *Pravda,* Marshal Krylov boasted that "at the moment" the Soviet Armed Forces "are armed with the best strategic intercontinental missiles with nuclear warheads in the world."[10] The claim to Soviet military superiority has also been advanced by General S. L. Sokolov, First Deputy Minister of Defense, who said:

> We are all witnesses to the fact that the Central Committee of the Communist Party constantly provides the military-technological means to assure undisputed superiority over the armies of the most powerful capitalist countries.

It is not possible to ascertain how serious the Soviet leaders actually believe the threat of war to be. However, it is evident they see political benefits in claiming the existence of such a threat and that it serves to justify the large Soviet expenditures on defense. The fact that the latter may in turn generate increased Western defense efforts is merely portrayed as a confirmation of the existence of a threat of U.S. aggression.

The Role of Civil Defense

In the Soviet view, civil defense is an integral part of the Soviet defense capability and an important fac-

[6] V. V. Gradoselsky, 1970.
[7] Radio Moscow, June 10, 1970.
[8] Lt. Col. Kozlov, October 1969.
[9] April, 1970.
[10] November, 1970.

tor in the attainment of victory in war. Thus, Chuikov wrote in the second edition of his pamphlet:

> In our time the defensive might of a state is determined not only by the readiness of the armed forces to wage war but also by the ability to assure in the course of the war a level of industrial and agricultural production sufficient for its successful conduct.

Repeating an earlier statement to the effect that "victory depends on the reliable protection of people, material resources and cultural treasures," he adds that "a state can survive a missile nuclear war only if the entire population and economy are well prepared for it, if along with powerful armed forces the state is strong in civil defense." Again in an article published in February 1971, he asserted that "civil defense as a system of all-people state measures occupies a weighty place in the complex of actions determining the defense capability of the country." This theme has been repeated by other spokesmen; for example by the Military Commissar of Moscow, who wrote: "Civil defense has become one of the strategic measures ensuring the survival of the Soviet state . . . "[11]

A direct connection is made between victory in war and the existence of an effective civil defense capability. Soviet spokesmen frequently assert that in the event of a war, the Soviet Union will defeat its enemies. For example, in his speech on the occasion of the 50th Anniversary of the Russian Revolution, Brezhnev said: "Let it be known to all that in a clash with any aggressor the Soviet Union will win a victory worthy of our great people of the homeland of the October Revolution." In the same vein, the Party First Secretary of the Azerbaidzhan SSR said in a speech that the CPSU "maintains the defensive might of the Soviet nation and the combat readiness of our Armed Forces at a level that will assure the decisive and total defeat of any aggressor that dares to attack the Soviet homeland."[12] Marshal Grechko has asserted that the CPSU is "elaborating ways" for the "decisive rout of the aggressor if he raises weapons against us."

In the Soviet view, victory in war is only possible if, in addition to destroying the enemy, the Soviet Union succeeds in reducing its losses and survives as a functioning administrative, social and economic system. Civil defense gains further in importance in view of the Soviet belief that in the event of war the targets for nuclear strikes will include all the major urban, economic, administrative and communication centers and that their destruction may exert a "decisive influence" on the entire course of the war and even determine its outcome. Thus, according to Colonel General O. V. Tolstikov:

> It is evident that the timely and correct execution of these [civil defense] measures has an enormous significance for strengthening the defense capability of our socialist state, for the preservation of the lives of Soviet people in the name of victory over the enemy . . ."

Similarly it is said in another publication that in view of the "enormous destruction of material, cultural and scientific assets, and the death of many millions of people" in a nuclear war:

> The side which can preserve to the greatest degree its production forces and their base—the people—insure the steady work of administrative organs, important industrial facilities and transportation and protect the bases for supplying food and raw materials can be victorious in such a war.[13]

Another example is a recent article in *Communist of the Armed Forces* which states:

> In close joint action with the Soviet Armed Forces, it [i.e., civil defense] is charged with protecting the strategic rear of the country and, by the same token, will make a considerable contribution to victory over the aggressor . . .. In its turn, civil defense will give invaluable aid to the Soviet Armed Forces in achieving victory over the enemy . . .[14]

Soviet publications continue to assert that in addition to nuclear weapons there is a high likelihood that chemical and bacteriological weapons will be used in the event of an attack on the Soviet Union. They claim that the West and especially the United States plan to use such weapons and are stockpiling them. "In the imperialists' plans for preparation for war, a significant place is assigned to chemical and bacteriological weapons." It is asserted that "bacteriological weapons are one of the most powerful among weapons of mass destruction." Chemical and bacteriological weapons are said to be intended for use against military personnel and the civilian population as well as crops and livestock and it is claimed that the West regards such weapons as "supplementary" to nuclear weapons in a total war." Soviet sources cite the alleged use by the United States of bacteriological and chemical weapons in the Korean and Vietnam conflicts as evidence of U.S. readiness to employ such weapons in a war against the Soviet Union.

To date, U.S. actions to destroy some CW/BW stockpiles and to cease production of these weapons have been dismissed as a propaganda gesture and as an attempt to divert attention from Moscow's proposals for an international agreement to ban the use of such weapons and for the destruction of all types of weapons of mass destruction.[15] U.S. actions also have not

[11] July, 1970.
[12] November 21, 1970.
[13] M. Bodazhanov, December 29, 1970.
[14] Col. N. Basov, November, 1970.
[15] Radio Moscow, December 27, 1970.

been reflected in any changes in Soviet civil defense preparations designed to protect the population and the economy against chemical and bacteriological weapons.

According to Soviet publications, the U. S. "assured destruction" strategic posture is alleged to be intended for a U. S. first strike against the Soviet Union. According to the 1968 edition of Tolstikov's pamphlet, U. S. strategic plans against the Soviet Union include the "assured destruction of millions of people and up to 80 percent of the industrial potential and of at least 200 of the largest cities." The 1970 edition of this pamphlet omits the specific number of targeted cities and instead states that the U. S. "threatens to be prepared to destroy several hundred of the large cities and other objectives."

The destructiveness of modern weapons is duly recognized by Soviet spokesmen and writers. According to them a war would entail "enormous destruction, numerous losses of material, cultural and scientific assets and the death of many millions of people." Chuikov points out that in addition to the possible destruction of "critically important targets" and large losses among an unprotected population, "the formation of wide zones of contamination and destruction" may cause "various important regions to become isolated from the center and from each other."[16]

Because of the destructiveness of modern weapons, Soviet sources express concern that fear of war may generate a feeling of "hopelessness" and "defeatism" among the population and give rise to a "bourgeois-pacifist" attitude.

> Marxist-Leninists are not panicked in the face of the terrifying danger created by imperialism not depict it as the prelude to the "end of the world" . . . . It is necessary to understand clearly that the bourgeois-pacifists' arguments about the "end of the world" in such a war and the impossibility of victory benefit only the aggressor and the nuclear maniacs, who would very much like one or other of those against whom they are contemplating a nuclear attack to freeze in horror and lay down their arms.[17]

The Soviet position is that Communists are not against all wars because they are in favor of "just wars," such as national liberation and revolutionary wars. It is recognized, however, that in order to instill the proper outlook in the population it is necessary to reassure it concerning the feasibility of protecting it from the effects of "weapons of mass destruction." According to Chuikov "the main thing is to demonstrate convincingly that we have created and are perfecting reliable means and methods of defense." It is argued that effective protection can be created against any man-made threat. For example, according to Lieutenant General D. I. Shuvyrin, First Deputy Chief of Civil Defense of the USSR:

> It is only logical to ask: Are there such effective protective means and measures? Is man not helpless in the face of a nuclear blast? These questions can be answered as follows: Whatever the efficiency of modern weapons, man's insight can find a countermeasure.[18]

Similarly, Major General F. Rotar, Chief of the Civil Defense Staff of the Moldavian SSR, has asserted that:

> It goes without saying, nuclear weapons are a powerful means of destruction. But does this signify that man is defenseless in the nuclear age and that he is absolutely impotent against weapons of mass destruction? Whoever thinks so is deeply mistaken.

The more common form of Soviet comment is that large losses will be avoided if the country and the population are prepared to take appropriate protective measures. It is also said that "in order to win a war it is necessary to be better prepared than the enemy" not only insofar as offensive weapons are concerned but also in regards to civil defense.

According to Soviet publications, it is recognized that civil defense by itself cannot solve all the problems of protecting the population and the economy from destruction, and that the military forces must also do their part by reducing the weight of the attack. Furthermore, Soviet military doctrine states that the first strike may be decisive in a future war, especially if it is carried out by surprise. Consequently, various Soviet spokesmen have suggested in the past and continue to do at present that the Soviet Union expects to carry out a "preemptive" attack which would blunt enemy strikes against the Soviet Union. The most explicit statement to this effect was made by Lieutenant General Shuvyrin in an article published in 1968:

> . . . one must keep in mind that the aggressors will not be able to make full use for their purposes of their strategic means of attack. A portion of these means of weapons' delivery will be destroyed or damaged before their launching—while they are still on their launch sites, bases and airfields; another portion will be destroyed or damaged by weapons of the Air Defense in flight at the approaches to the territory of the socialist camp; still another portion of the missiles and aircraft will fail to reach their targets for technical reasons [i.e., malfunction].

More recent Soviet statements suggest that the Soviet planners continue to rely on a "preemptive" strategy. For example, Marshal Krylov speaks of a Soviet "counter-blow" in the event of a war which "can exert a determining influence on the whole course of the war." He also asserted that the Soviet Union had learn-

[16] November 20, 1970.
[17] Maj. Gen. K. Bochkarev, August 25, 1970.
[18] Radio Kiev, January 21, 1970.

ed its lesson in 1941 concerning the danger of a surprise attack and that it "shall do all that is necessary so that 1941 is never repeated."[19] Grechko has called for "the persistent improvement of the armed forces' combat readiness for immediate and decisive action" which could be "the key to victory in war." A civil defense official has asserted in a broadcast that the Soviet missile forces have a "counter-force" mission against enemy forces:

> The most effective means of defending the country's population are effective actions aimed at destroying the enemy's offensive weapons both in the air and on the ground at their bases. Rocket troops—the new type of armed forces—play a major role in the destruction of the enemy's offensive weapons.[20]

The importance of the offensive over the defensive is stressed in Soviet broadcasts to Communist China. Thus, one broadcast said:

> The offensive will continue to be the most effective way to accomplish any mission of an armed struggle . . . The defensive, as a means of military operation, has lost its importance. In the face of an enemy possessing nuclear weapons and pinning his hopes on a first strike, a defensive strategy means to subject voluntarily a country and its armed forces to nuclear strikes and is contrary to the concept of modern warfare.[21]

Although preemptive counter-force strikes and active anti-aircraft and anti-missile defense are expected to blunt the attack, "it cannot be excluded that a certain portion of the enemy's nuclear, chemical and bacteriological weapons could reach their targets."[22] Thus the need for civil defense is justified in terms of having to deal with the damage which could be inflicted by surviving enemy strategic weapons. How much damage these weapons are expected to inflict is not said publicly. While it is claimed that civil defense will "significantly" reduce casualties and damage, it is also at times acknowledged that "the aggressor's defeat in a nuclear war will be achieved at a high price." Although Soviet statements for domestic consumption tend to be reassuring concerning the ability of the armed forces and civil defense to provide effective protection against an attack, in its polemics with China, Moscow tends to emphasize the destructiveness of the war. For example, a Soviet broadcast criticizing the alleged Chinese view on war as a means of precipitating revolutions, said that such a war "would destroy all major centers of civilization in the world, wipe out the majority of the peoples and countries and lead to the destruction of productivity."[23]

[19] Radio Moscow, June 22, 1970.
[20] August 5, 1970.
[21] Radio Moscow, January 13, 1970.
[22] I. Mikhailov, October, 1970.
[23] Radio Moscow, August 3, 1970.

Soviet literature and spokesmen also cite western civil defense programs in justification of their own. However, a sharp distinction is drawn between these programs. It is alleged that because civil defense "primarily and first of all performs political functions and pursues class goals," Western civil defense is a tool of the capitalists and is designed to promote their "class" interests, the militarization of society and preparations to attack the Soviet Union.

> It serves the purpose of creating U.S. military superiority, preparation for and unleashing of aggressive nuclear war by them and securing victory in it. Therefore, it is completely correct to call U.S. civil defense a mistress of the monopolies and of the military industrial complex, which is also confirmed by an analysis of its link with [U.S.] domestic policy.

By contrast, Soviet civil defense is said to be in the interest of the working people and of the population as a whole and therefore is "democratic and humane" in its essence.

> Soviet civil defense will not provoke, instigate, or accelerate the coming of war . . . . Improving Soviet civil defense and increasing its efficiency is one more serious barrier on the path to the unleashing of world war by the imperialists.

One must note, however, that the same Soviet spokesman also asserted that civil defense would contribute to "securing victory in war if the peace-loving peoples are unable to avert it."

The Mission and Status of Soviet Civil Defense

The mission of Soviet civil defense continues to be the protection of the population and of the economy, assuring the continuous operation of critical industries and services in wartime, and conducting extensive rescue and emergency repair work following an attack. It is a national program which involves all levels of party, state and economic agencies and administrative organs, as well as the general population whose participation is compulsory and is viewew to be a "patriotic duty" of every Soviet citizen. The complex of measures envisaged under the program includes warning, evacuation and dispersal of residents of likely target areas, blast and fallout shelter construction, industrial dispersal and hardening, protection of crops, livestock, water, food, fuel and other supplies, the organization and equipping of a large force of specialized civil defense formations and units, and providing the population with gasmasks and other means of protection against chemical, bacteriological and radiological agents.

> Civil defense is an area of unlimited activity by party organs, soviets, trade unions, the Komsomol, and the leaders of collectives. The goal of civil defense is to instill in each citizen and each collec-

tive a knowledge of the weapons of mass destruction in a modern war and an ability to protect themselves from the effects of these weapons.

It is frequently asserted that the "Communist Party and the Soviet Government are giving constant attention to the development of civil defense of the USSR." The directive to improve civil defense issued by the 23rd Congress of the CPSU in 1966 and repeated by Brezhnev in a speech in 1967 has been of great consequence for the program. The effect has been two-fold. It has given Soviet civil defense more prestige and thus an improved ability to command a greater share of investment and support. This appears to be reflected in the expanded civil defense organization, the greater availability of equipment, the more rigorous training, the great increase in civil defense propaganda, and so on. The other area of improvement has been the increased involvement of local party and administrative organizations in civil defense. The increased interest of party organizations in civil defense is reflected in frequent reports of growing numbers of meetings held and resolutions passed devoted to civil defense problems, of training seminars for party secretaries and of growing party activity in supervising the implementation of civil defense measures. According to Chuikov:

> In Beeorussia, Kazakhstan, Armenia, Estonia, Moldavia, and other union republics, in many oblasts, cities and raions problems of strengthening civil defense and its perfecting have begun to be systematically discussed in bureaus and plenums of party committees, in meetings of party activists and by primary party organizations. Party control over the fulfillment of approved decisions has been strengthened. Party workers are increasing their knowledge of civil defense in courses, meetings and seminars.[24]

It is reported that in 1969-1970 many local party organizations, soviets and also ministries carried out extensive surveys and checks to determine the state of civil defense in subordinate organizations in order to identify and deal with shortcomings.

The active participation of local party organizations in civil defense is the most important factor in assuring the momentum of the program, because it signals to other officials and administrators the order of priorities in their own activities and interests. Thus, it is said that "the success of civil defense in all of its sections and all of its stages depends to a significant extent on the leadership and purposeful work" of the local party leaders.

Tolstikov also noted the resulting improvements in the civil defense program.

> Party influence in civil defense matters has been intensified. Local soviets and economic organs are carrying out much work in the interest of civil defense. They have begun to involve themselves more deeply and more concretely in matters connected with raising the stability of the operations of enterprises of the national economy [in wartime] and preparing for the protection of the population against weapons of mass destruction.

Soviet spokesmen assert that significant improvements have been achieved in civil defense. "Literally day by day new improvements are taking place in civil defense . . ."[25] One reason for this is said to be the impact of the celebration of the hundredth anniversary of Lenin's birth in 1970 which has given rise to a national movement of "socialist competition" in many spheres, including the area of improving civil defense and completing the prescribed activities programmed for that year.

> . . . in the last years there has taken place a significant shift in the entire work of preparing the population of the country for defense against weapons of mass destruction. Especially fruitful was the past year of 1970—the year of the Lenin jubilee and of the 25th Anniversary of our victory in the Great Fatherland war.

A further upsurge of efforts was planned as a result of competitions organized in honor of the March 30, 1971 meeting of the 24th Congress of the CPSU.

Despite claims of further improvements, the program is acknowledged to suffer still from various shortcomings and to be far from complete. Most of the shortcomings are said to result from the insufficient attention and seriousness with which some local industrial and farm managers and organizations implement the program. In his 1971 New Year's statement, Chuikov, while noting the improvements, also wrote:

> Unfortunately one must recognize that in a number of our cities and rural districts [raions] along with facilities of the national economy where civil defense is constantly on the upgrade, there are also enterprises, collective and state farms, agencies and organizations, leaders and staffs which deal with it in a formalistic manner.[26]

In numerous articles on civil defense activities specific cities, districts, factories, farms and so on are singled out for praise or criticism. Of course one purpose of this practice is to spur on others to greater efforts and to force those at fault to take corrective measures. Public criticism is a widely practiced Soviet technique to focus the attention of local party and governmental agencies on shortcomings in order to bring about needed improvements. It is, therefore, important to keep in mind that while Soviet civil defense is uneven in its implementation and there are many instances of local

[24] January, 1970.

[25] *Pravda*, September, 1970.

[26] February, 1971.

shortcomings, these are being corrected and the program as a whole is being improved from year to year.

Concerning further development of the Soviet civil defense program, a recent editorial calls for "socialist competition" to be directed to the solution of the "new tasks set by the Chief of Civil Defense of the USSR for the 1970-1971 jubilee year" in order to achieve a "sharp improvement in the quality of the training of the entire population, especially the school children."[27] Among the tasks planned for 1971, Chuikov mentioned improvements in the training of civil defense units and staffs, especially in winter and night operations, greater attention to shelter construction and the equipping of rural fallout shelters, more work on the hardening of industrial facilities, and raising the quality of the training of school children. Emphasis is also placed on holding exercises and teaching practical skills to the population and civil defense formations.

While the primary mission of Soviet civil defense is to perform its assigned role in wartime, it has a secondary mission of helping to deal with the effects of natural disasters. In recent years local civil defense organizations and their specialized units have been called upon to help deal with the consequences of hurricane damage in the Baltic States, the Sakhalin Island and the Ukraine; and of earthquakes in Tashkent and Dagestan. In all probability civil defense personnel also assisted the authorities during the cholera epidemic which broke out in Astrakhan, the Crimea and Odessa in the summer of 1970.

Summary

Civil defense activities in the Soviet Union date back to 1924. In 1932 the USSR Council of People's Commissars established the first centralized national defense organization called Local Anti-Air Defense (MPVO). However, Soviet civil defense for the nuclear age came into being in 1961 with the organization of Civil Defense (Grazhdanskaia Oborona) under the control of the Ministry of Defense of the USSR. The new program was charged with developing and implementing measures designed to protect the population, industry and agriculture against the effects of nuclear, chemical and bacteriological weapons, to develop a large civil defense organization and a widespread corps of civil defense units and to train the entire population on a compulsory basis in civil defense. Financial support was provided from the national budget as well as by various levels of territorial administrations and economic organizations.

The scope of the program and its activities has fluctuated with the degree of priority assigned to it by the Soviet Government and the attention given it by the Communist Party. In 1966, the importance of the program was upgraded as a result of an unusual endorsement by L. I. Brezhnev, General Secretary of the Central Committee of the CPSU at the 23rd Congress of the CPSU which was incorporated also into the Congress' Resolution. The net effect of this was the increased support of the program by Communist Party organizations at all levels which, in turn, allowed the civil defense organizations to demand greater cooperation from the local administrative and economic organizations and a larger share of resources. An examination of open Soviet sources indicates that since that time the Soviet civil defense program has increased in scope and intensity and that this high level of activity also continues to be sustained at present.

Soviet spokesmen continue to argue for a high state of preparedness for war and assert that far from diminishing, the threat of war not only persists but may even be increasing as a result of the greater willingness of the "imperialists" to resort to violence in the face of the growing socialist gains in the world. Although Communist China is also cited as a possible threat to the Soviet Union, the West, especially the United States, continues to be identified as the main enemy. This has led some military writers to imply that the Soviet Union should seek military superiority over the West. The ability to protect the population against attack and to assure essential industrial production in wartime continues to be perceived as a critical factor in national survival and victory in a nuclear war. For this reason, Soviet civil defense is said to be an essential element of Soviet defense capability.

Soviet military doctrine ascribes a decisive character to the first strike, which it believes can determine the course and outcome of a war. The targets for such an attack include not only the enemy's strategic forces but also his administrative, industrial, transportation and communications centers. Because of the decisiveness of the first strike, Soviet spokesmen argue for a "preemptive" strike which will blunt the enemy's attack and facilitate the active and passive defense of the Soviet Union. Soviet spokesmen indicate that they expect civil defense to have to deal primarily with the damage inflicted by the residual enemy forces which survive the Soviet first strike and Soviet anti-air and anti-missile defenses.

The general character of the Soviet civil defense program continues to emphasize the need to protect the population and the economy, not only from nuclear but also from attacks with chemical and bacteriological weapons. It emphasizes pre-attack evacuation of the population from target areas, the building of shelters, the preparation of industry for wartime operation, the organization and training of civil defense formations, large-scale post-attack rescue and emergency repair activities, and the training of the entire population. The momentum of the program and its further improvement appear to be partly the result of increased involvement in it of local Communist Party organizations and state-administrative organs. Close party supervision helps to

[27] Voennye Znaniia, January, 1971.

insure that civil defense is given the proper attention by all concerned.

The recent literature reflects increased concern with the problem of effective command and control of civil defense by staffs and commands. It calls for wider use of automated systems, computers and rapid communication systems, and for acceleration in the development and application of new scientific and technological discoveries in civil defense. There is also evidence of a growing role being assigned to military civil defense forces which operate in conjunction with civilian units. Because they are provided with heavy equipment they have an important mission in the post-attack rescue and repair operations.

Pre-attack evacuation of the unessential urban population to rural areas and the dispersal of essential workers to suburban zones is viewed as the best means of protecting people living in potential target areas. Planning and organization of these measures, especially of dispersal of workers, appear to be proceeding and being perfected. They are reported to be tested in exercises held by factories in various parts of the country. At the same time some writers suggest that there may be insufficient time to complete the evacuation before an attack and recommend the construction of shelters or the pre-war decongesting of large cities.

The main emphasis in shelter construction remains on blast shelters for work shifts remaining in the target areas and on fallout shelters for the rest of the population. Industrial shelters are reported to have been built in many localities, but others are said to be still under construction. The building of dual-purpose shelters in the cities and wide use of subways, caves and tunnels is coming increasingly into practice as a means of reducing shelter costs. Although some writers doubt that there will be sufficient time to complete the fallout shelter construction program prior to an attack, it appears, at this time, than in the main such shelters will be only built in the event of a threat of war. Improved designs and techniques, as well as the training of the population in shelter construction, is said to allow for a rapid acquisition of the needed capacity. The data suggest, however, that several days will be required for the evacuation of people and shelter construction.

Various measures are also recommended for reducing the vulnerabilities of industry to attack, including planned industrial dispersal in the construction of new plants. However, the emphasis is on low-cost measures, designed to avoid unnecessary damage and to expedite repairs to plants and services on the periphery of the area of devastation.

The compulsory 21-hour civil defense training program of the general population, the most recent of six such courses given since 1954 has been continued with refresher lessons and greater stress on exercises for those who have completed it. Special emphasis is placed on the training of children and youth, starting with civil defense competitions and tactical exercises in summer camps by 4th graders and older children. It appears that school children in the 5th to 11th grades now receive a total of 115 hours of training not counting extra-curricular exercises and competitions. It is reported that in 1969, some 16 million school children participated in militarized games called "Zarnitsa" which included civil defense exercises. New training programs were added in 1970 for students in technical and vocational schools. Civil defense propaganda also remains at an all-time high with extensive use being made of all media of mass communication.

Along with indications of improvements in civil defense, Soviet sources also report the persistence of many deficiencies, ranging from slow construction of industrial shelters to apathy among some administrators and elements of the population, to unevenness in the quality of planning, organization and training. For the present, the priorities clearly favor measures to protect those sections of the population which are believed to be most essential to the war effort and the viability of the country and its political-administrative system.

The outstanding features of the current Soviet civil defense program may be characterized as follows:

* Soviet sources give strong evidence that far from being a mere paper program, civil defense in the Soviet Union has markedly expanded its scope and activities and has been able to call on increased investments of manpower and resources. It appears to be at the present time the largest program of this kind in the world.
* Although the Soviet Union has kept the costs of its civil defense program secret, the evidence indicates that the annual investments in it greatly exceed those of the United States or of any other Western country.
* The effectiveness of Soviet civil defense appears to depend greatly on receipt of several days of strategic warning of an attack and on a Soviet first strike against enemy strategic forces, as well as administrative and industrial centers.
* The protection of the population is to be accomplished by a combination of evacuation and dispersal of residents in potential target areas and of construction of various types of shelters, while industrial survival is based on a system of dispersal and of low-cost hardening measures.
* Civil defense training and education of the population is expanding and there is strong evidence of the existence of a large civil defense organization which is still growing as more specialized civilian and military units and formations of all kinds are coming into being.
* Although the implementation of the program continues to suffer from various shortcomings and Soviet reports cite many instances of public and administrative apathy, the cumulative effort over the past decade and a half in shelter construction,

(*Continued on page 5*) **DEVELOPMENTS**

ASSURED NUCLEAR DESTRUCTION?

by

Carl F. Miller

Some statesmen and writers have adopted the "nuclear war is the end of mankind" position without any real assessment of what casualties and damage would, in fact, result. This exaggeration of fact may be well-intended to influence nations to reject nuclear war but its unchallenged acceptance obscures a very telling argument for fallout shelter.

Firm belief in "assured destruction" as an inevitable result of nuclear war may also result in a questionable defence policy. For example, the acceptance of "deterrence" as a matter of practical policy depends upon two assumptions:

(a) that the destruction from nuclear war would in fact be so complete as to be unacceptable.

(b) that existing arsenals are now, or will shortly be, adequate to assure accomplishment of (a).

If, however, the capabilities of the USSR in ballistic missile defence or civil defence were to be developed to the point where, in their view, unacceptable destruction was no longer assured, then it is less likely that the Western concept of assured destruction would play any large role in shaping or determining future events.

Dr. Carl Miller of URS Research Company, San Mateo, Calif., has analysed the "assured destruction" idea and done the necessary arithmetic. Excerpts from the summary and conclusions of his report "Assessment of Nuclear Weapon Requirements for Assured Destruction" prepared for the United States Office of Civil Defense are reproduced here. They emphasize the danger of accepting popular but unsubstantiated clichés for planning purposes. (Burke Stannard, Scientific Adviser to the National Coordinator, Civil Emergency Measures, Canada Emergency Measures Organization).

The results of a few rudimentary nuclear-war-damage-assessment calculations have been presented to investigate the simplistic view of nuclear war consequences put forth by various politicians, newsmen, and scientists. This idea, without stated qualification, anticipates the destruction of mankind following an exchange of nuclear explosives between the Soviet Union and the United States. As a starting point, the possibility for destruction of ALL mankind by such an exchange was denied in an absolute sense and the problem was reduced to that of estimating force requirements for only the destruction of all mankind within the boundary of the United States. Literal interpretation of such a goal was used to specify attack patterns which would place the largest number of people at risk for a given number of weapons, explosive yield, or other measure of the level of the attack force requirements. Although military targets and BMD capabilities of possible prime consideration in first-strike attack patterns were not specifically treated in the analyses, their inclusion as individual targets would increase the estimated (attack) force requirements .... needed to produce fatality levels that are associated with assured destruction of mankind (e.g. about 100 percent) in the United States would not be significant.

Two types of attack patterns were considered. In the first, single weapons with an appropriate yield were assigned to each urban area of the US as a single target. In the second, weapons with a stated yield were allocated to each urban place or city and to the rural areas of each state as single targets in order of decreasing population density. In most of the calculations, only blast damage effects were considered and all weapons were assumed to be detonated at the height over the targets at which the maximum distance to a given overpressure contour occurs. The effect of Multiple Independent Re-entry vehicles and fallout on the results and on several civil defense questions are discussed separately.

In the first set of calculations, the number distribution of 682 weapons as a function of explosive yield for enclosing 682 urban places by overpressure contours of 5 to 48 psi. were estimated and the percentage of the population and manufacturing value associated with these urban places was accumulated in order of decreasing population density. Also, the required weapon yields for 6,041 urban areas were estimated using average areas and populations for various classes having less than 25,000 people. Enclosure of the 6,041 urban areas (in which 64 percent of the population resides) by overpressures contours that vary from 5 to 48 psi would require, for the 6,041 weapons, total explosive yields that range from 1,140 to 76,800 megatons. The results have implications for weapon stockpile compositional design for the US urban area target array. They also indicate the high sensitivity of the total yield requirements on the overpressure contour that is selected to assure a given level of destruction.

In the second set of calculations, the number of detonations and total explosive yields were estimated for weapons yields that ranged from 100-KT to 30-MT for coverage of all target areas by overpressures of at least 5 psi to at least 48 psi. Incorporation of survival

rate data for people sheltered in wood frame and concrete structures, as deduced from the Japanese experience in Hiroshima and Nagasaki, reversed the order in the overpressure fatality curves previously deduced using an arbitrary method of estimating the number of fatalities for a given amount of explosive energy. The calculations also revealed the relatively smaller total megatonnage required for a stated percentage of population affected by a given over-pressure for the patterns in which many low yield weapons are allocated to the many smaller urban areas, instead of a smaller number of high yield weapons. The results also suggest that if the US population, sheltered in wood frame and concrete shelters, were attacked according to the described patterns, area enclosure with the overpressure contour giving 100 percent fatalities within individual target areas, generally would require the least total explosive energy for a given level of total fatalities.

The computational results indicate that for the population in wood frame structures, about 10,000 100-KT air detonations (total attack weight of 1000 megatons) would be required to kill essentially all the people in the 134 largest US cities by air blast effects. Almost 50,000 of such explosions would be required to destroy all urban places (60 to 65 percent of the population). The number of detonations decreases but the total megatonnage increases if larger yield weapons are allocated to create the same level of destruction. If the whole population were sheltered in concrete buildings, about 60 percent of the population could be killed upon appropriate delivery of an attack of less than 6,000 megatons total explosive yield using 100-KT air burst weapons (i.e. 60,000 detonations). But in each of these cases, the availability of individual delivery vehicles for so many warheads could pose as an apparent major operational constraint in mounting such an attack, even though the total nuclear explosive yield of the Soviet Union forces is currently estimated to be considerably larger than 6,000 megatons.

On the other hand, a nuclear attack that would assure complete destruction of the US population (which is about 93 percent short of the destruction of all mankind) with the population sheltered in wood frame buildings, would require total explosive yields ranging from about 450,000 (100-KT air bursts) to 3,000,000 (30-MT air bursts) megatons. For the population sheltered in concrete buildings, the megatonnage required would range from about 600,000 to 4,000,000 megatons for the two respective weapon yields.

Information provided to the news media by government officials on MIRV suggests that the area enclosed, or the number of people affected, by a given minimum overpressure from detonation of the combined warheads at maximum payload of a SS-9 missile (and, perhaps others) is independent of the explosive yield of the individual warheads carried by the missile. Thus, unless the dispersion range of the MIRV system is rather large, the only major advantage of MIRV for the described attack pattern is in the saving of rare and costly fuels and materials. If the ranges of use are such that all over-kill effects in weapon yield or in numbers of weapons per target are eliminated, then the full potential advantage of the MIRV systems could be realized in the targeting of a strike on a large number of smaller urban areas (or a large number of small military targets). Estimates of current (1970) Soviet nuclear weapon capabilities were used to calculate that, if the force were delivered according to the described patterns or urban targets, as many as 42 percent of the population, if sheltered in wood frame structures, could be killed. It was also estimated that, with the same vehicular system having advanced MIRV capabilities and carrying as many 100 kiloton warheads as feasible, up to 52 percent of the population sheltered as before could be killed.

The published information on the Soviet SS-9 construction rates indicate that, if the current estimates were maintained indefinitely, the SS-9 missile force needed to assure destruction by air blast weapons effects of the 1970 US population sheltered in wood frame structures could not be assembled prior to the year 3,000. If the installation rate were continuously increased by 5 per year indefinitely, the time required for assembling such a force would be almost 200 years. The total cost of the SS-9 system (with MIRV for the smaller targets) would exceed 3 trillion 1970 US dollars even if the US population remained constant at 205 million. (The times and costs would be increased by about 40 percent if the 1970 population were sheltered in concrete structures). On the basis of these estimates, it does not appear that the Soviets have, or would ever have, the nuclear force required to accomplish by air blast effects the destruction of mankind within the boundaries of the United States. Thus, the destruction of all mankind by such a force is more assuredly impossible.

When the fallout hazard from ground bursts from warheads with an explosive yield of about 100-KT is considered, the above conclusions are drastically altered. For the population sheltered in wood frame houses the lethal range of the stem fallout about ground zero would be greater than that for the air blast overpressure, such that the area enclosed by the contour for the latter would be exceeded by about a factor of 12. In other words, for the exposure conditions cited, the (100 percent) lethal area for the very close-in fallout from a 100-KT ground burst would be equal to the area enclosed by the 35-psi contour from a 4-MT air burst. The overall effect of detonating the 100-KT yield weapons at ground surface on the size of the nuclear force (i.e. SS-9's with 100-KT warheads) needed to destroy the US population would be to reduce the above-stated installation times and costs for the SS-9 by a factor of about 10. At the present installation rate, the time of 230 years to completion would still be

an excessively long time. However, at the estimated increasing production rate, the time required for installation would be reduced to a period of 10 to 20 years. Costs of the system would still be formidable at 300 billion dollars.

The effective lethal radius for both the air blast and fallout radiation effects would be decreased by an increase in sheltering capabilities. Thus, if the population were sheltered in concrete buildings with a protection factor of at least 130, the limiting effective lethal radius for the very close-in fallout from a 100-KT surface burst would be approximately equal to that of the 48-psi overpressure contour for a 100-KT air burst. Thus, if shelters with protection factors of 130 or greater were everywhere available, the apparent effect of the fallout hazard on reducing the nuclear force requirements for the elimination of the US population in 20 years or so, as discussed in the previous paragraph, would be more than countered. To eliminate the US population sheltered in this system, the required number of SS-9's (with 100-KT warheads) would increase to about 160,000. At the estimated continuously increasing rate of production, this number could be deployed during the year 2760 at a total cost of around 4.5 trillion 1970 dollars.

The role of the fallout shelter in prohibiting the possibility of assured destruction of the US population within the next two or three decades is thus perfectly clear: the limitation of the prime hazard of nuclear explosions to people to that from blast effects. If this were done in an effective manner, the simplistic view of destruction of manking would apparently require a nuclear force that cannot conceivably be produced and deployed with current technologies and economic costs. In this situation, the connection between the civil defense capability in providing the necessary fallout protection and the US nuclear arsenal capability in providing the necessary deterrent effect is established since both are apparently related to the size of the nuclear force to be constructed (but not used) by the Soviet Union over a period of time. This must be true so long as the nation's political leaders, newsmen, scientists, and even military leaders discuss the subject of nuclear war in terms of the destruction of mankind.▲

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